

Notice of Update
of the
Standard Definitive Design for Army Access Control Points

Date: 27 February 2008

The Protective Design Center is working on an update of the 4 December 2004 Standard Definitive Design (SDD) for Army Access Control Points. One of the significant changes to the current SDD is the minimum required distance between the ID Check Point and the Active Vehicle Barriers when using an advanced overspeed detection system. Currently, the SDD allows a minimum distance of 298' for the Presence Detection Safety System and 722' for the Signs and Signals Safety System.

These minimum distances are based on two zones of continuous overspeed detection in front of the ID Check Point with the inner zone (closest to the ID Check Point) set to alarm at vehicle speeds of 20 mph and over. The range of this inner zone includes all inbound lanes for a distance of 198 feet in front of the ID Check Point. The outer zone is set to alarm at vehicle speeds of 35 mph and over. Its range ends 198 feet in front of the ID Check Point where the range of the inner zone begins. The beginning of the range of the outer zone depends on the characteristics of the Approach Zone roadway, but could extend up to 300 feet (500 feet in front of the ID Check Point).

Although vehicles approaching the ID Check Point should be preparing to stop and therefore should be traveling at speeds less than the settings of these overspeed detection zones, experience has shown that these settings cause an excessive number of nuisance alarms (non threat vehicles over speeding and setting off the alarms). Excessive nuisance alarms are extremely detrimental to the security posture of the ACP. Overspeed alarms are essential tools required by ACP guards to detect possible Threat Vehicles. If there are an excessive number of nuisance alarms, then guards will ignore the alarms or even worse shut them off.

To reduce the number of nuisance over speed alarms at the ACP, the settings of the continuous overspeed detectors need to be raised. In the updated SDD, the minimum setting of the inner zone of continuous overspeed detection

will be set at 30 mph. The range of the inner zone will remain at 198' in front of the ID Check Point, so the setting of the outer zone of continuous overspeed detection will be set at 45 mph (15 mph over the setting of the inner zone).

The updated SDD will also include design procedures for minimizing the length of the outer zone by using one or more point overspeed detectors, which will also reduce the number of nuisance alarms. Point detectors located ahead of the zones of continuous detectors will detect the high speed attack (Threat Scenario #1 in the SDD) and can be set at higher speeds, e.g., 60 mph.

The distance between the ID Check Point and the Active Vehicle Barriers required to defeat Threat Scenario #2 in the SDD is a function of the alarm setting of the inner zone of continuous overspeed detection. For an alarm setting of 30 mph for this inner zone, the distance between the ID Check Point and the Active Vehicle Barrier must be 361 feet for the Presence Detection Safety System and 854 feet for the Signs and Signals Safety System. These are minimum distances and should only be used when there is no additional distance available. Where additional distance is available, the Active Vehicle Barriers should be placed 1118 feet from the ID Check Point. At 1118 feet, only one zone of continuous overspeed detection set at 50 mph would be required. Overspeed detection can be eliminated completely by locating the Active Vehicle Barrier 1778 feet from the ID Check Point **or by incorporating geometric roadway features that positively limit vehicle speed.**

The ACP designer has many options when designing protective features for ACPs. Designers should refer to the SDD for criteria and design guidance and coordinate with the Protective Design Center and the Installation to determine the suite of protective measures that will work best at any particular ACP.